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DRAKENSTEIN MUNICIPALITY

ASSET MANAGEMENT POLICY

1 July 2016

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1. Introduction

The Asset Management policy of Drakenstein Municipality (DM), originally compiled and approved in prior years, focused largely on the financial management of assets. In recent years, the understanding of the scope of Asset Management (AM) has developed as described in a number of guidelines published by the South African Government.

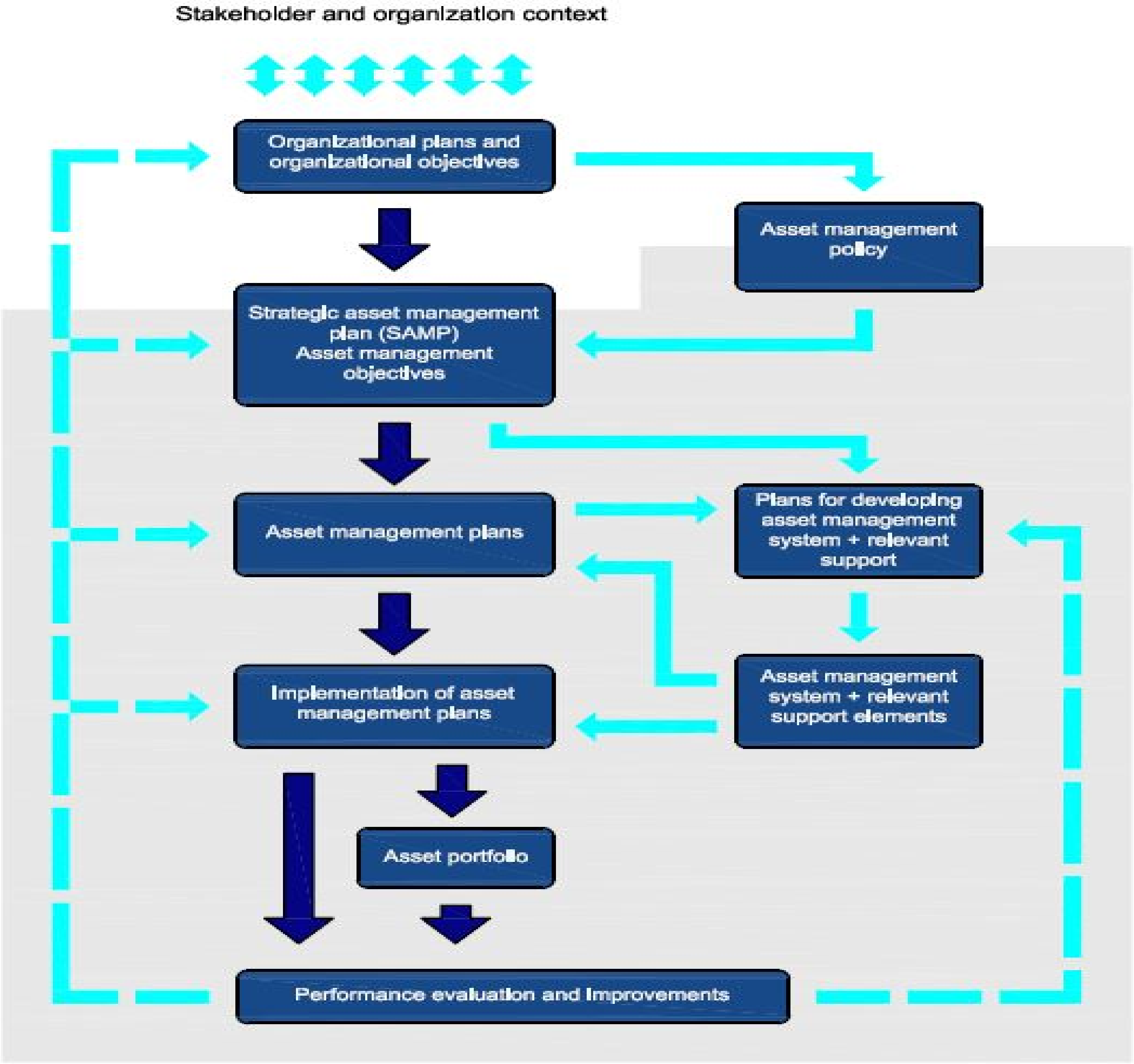
In addition, international guidelines such as the publicly available specification ISO 55000:2014, describe the performance areas that an asset owner such as DM must address, in order to ensure that it covers the full scope of AM.

During November 2015, DM participated in a high-level AM maturity self-assessment facilitated by Aurecon. The methodology used for the assessment was Pragma's AM Improvement Plan (AMIP), which is based upon 17 asset management key performance areas (KPAs), aligned with the ISO 55000 elements as depicted in the table below:

ISO 55000 element	**Asset management KPAs**
Strategic AM plan, with AM objectives	1. Strategy Management
AM system and relevant support systems	2. Information Management
	3. Technical Information
	4. Organisation and Development
	5. Contractor Management
	6. Financial Management
	7. Risk Management
	8. Environment, Health and Safety
Implementation of AM plans	9. Asset Care Plans
	10. Work Planning and Control
	11. Operator Asset Care
	12. Material Management
	13. Support Facilities and Tools
	14. Life Cycle Management
	15. Project And Shutdown Management
Performance evaluation and improvement	16. Performance Measurement
	17. Focused Improvement

Whilst a number of the required aspects were addressed in the 1 July 2014 DM asset management policy, it is clear that the policy should be expanded to cover the full scope of AM, as captured in this policy. The intent of all of the clauses in the previous AM policy has been incorporated in this policy.

The purpose of the AM policy is to define DM's vision and intent regarding all aspects of asset management. The policy also provides the framework for the development of the asset management strategy, KPIs and master plans. This is illustrated in the graphic below (which is taken from the ISO 55000 series: 2014 Standard for Asset Management).


Stakeholder and organization context
Organizational plans and organizational objectives
Asset management policy
Strategic asset management plan (SAMP) Asset management objectives
Asset management plans
Plans for developing asset management system + relevant support
Implementation of asset management plans
Asset management system + relevant support elements
Asset portfolio
Performance evaluation and improvements

The AM policy will remain fairly constant over time, since it defines the intent ("What") for AM. Conversely, the AM strategy and master plans define the long and short term road maps ("How") for AM. Therefore, these documents should be updated annually to align with DM's growth in AM maturity.

2. Scope and applicability

2.1 Operational Areas

All DM assets within the municipal area are covered by the policy, including the towns of Paarl, Wellington, Mbekweni, Gouda/Hermon and Saron.

2.2 Categories of physical assets

The AM policy covers the following types of assets:

1. Land
2. Buildings and other community facilities, i.e. parks, recreational facilities, resorts, gardens and cemeteries.
3. Engineering works (Infrastructure assets)
4. Machinery
5. Equipment
6. Vehicles
7. Furniture and equipment

Minor items that are generally regarded as expendable, even though their useful lives may extend beyond one year, e.g. kettles, desktop fans, staplers, letter trays and punches, are excluded.

2.3 DM's staff

The AM policy is applicable to all DM's staff who are involved in AM related activities. It includes the relevant external contractors and suppliers who are also involved in servicing DM's AM requirements.

3. Abbreviations and definitions

3.1 Abbreviations

The following abbreviations are used in this document:

Abbreviation	Description
ACP	Asset care plan, or Maintenance Plan
AM	Asset Management
AMIP	AM improvement planning. A business process which includes an assessment of an organisation's AM maturity.
ASB	Accounting Standards Board
BP	Best Practice
CAPEX	Capital expenditure
CBM	Condition-based maintenance
CFO	Chief financial officer
MM	Municipal Manager
DM	Drakenstein Municipality
EAMS	Enterprise AM system
EMT	Executive Management Team
EUL	Estimated useful life
FAMP	Financial Asset Management Policy
GIS	Geographic Information System
GRAP	Generally recognised accounting practices
HSSE	Health, safety, security and environment
IT	Information technology
KPA	Key performance area
KPI	Key performance indicator
MFMA	Municipal Finance Management Act
MRO	Maintenance, repair and operational items
NEMA	National Environmental Management Act
OAC	Operator asset care
OEE	Overall equipment efficiency

Abbreviation	Description
OMM	Optimum maintenance mix
OPEX	Operational expenditure
PMU	Programme Management Unit
PPE	Property, plant & equipment
RCA	Root cause analysis
RUL	Remaining useful life

3.2 Definitions

For purposes of this policy, unless otherwise stated, the following definitions shall apply:

Term	Definition
5S	A workplace organisation methodology which uses a list of five Japanese words which are *seiri* (sort), *seiton* (shine), *seiso* (set in order), *seiketsu* (standardise) and *shitsuke* (sustain).
Asset Management	The combination of systematic and coordinated management, financial, economic, engineering and other activities and practices applied to assets, through which an organisation optimally manages its assets and their associated performance, risks and expenditures over their life cycle, with the objective of providing the required level of service in the most cost effective manner.
Asset register	A list of all assets owned by DM, categorised as either: 1. Land 2. Buildings, structures and facilities 3. Infrastructure Assets 4. Other Assets 5. Heritage Assets 6. Investment Properties 7. Intangible assets
Availability	1. The probability that equipment will be able to perform its required function over a period of time, or at a given point in time. 2. Availability as a measure is an indication of the percentage of the scheduled operating time it was available to operate (as opposed to standing idle). Availability = operating time / scheduled operating time. Note that some organisations differentiate between engineering availability (considering engineering downtime only) and operational availability (considering only operational downtime).
Capital expenditure	Funds used to acquire a long-term asset, or to add to the value of an existing asset (i.e. upgrade or refurbish) with a useful life that extends beyond the current taxable year or to replace an asset which economic life time has expired

Term	Definition
Community assets	Any asset that contributes to the community's wellbeing. Examples are parks, libraries and fire stations.
Condition-based maintenance	This covers all inspections and tests (condition monitoring) which are done to verify the condition of equipment in order to predict and prevent failures before they occur.
Cost	The amount of cash or cash equivalents paid or the fair value of the other consideration given to acquire an asset at the time of its acquisition or construction.
Depreciable amount	The cost of an asset, or other amount substituted for cost in the financial statements, less its residual value.
Depreciation	The systematic allocation of the depreciable amount of an asset over its useful life. DM uses the straight-line method of depreciation.
Design improvement maintenance	This covers all modifications and projects which are made to equipment to remove a cause of failure.
Fair value	The amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction.
Executive Managers	All municipal officials in the different directorates reporting directly to the Municipal Manager.
Heritage assets	Culturally significant resources. Examples are works of art, historical buildings and statues.
Infrastructure assets	Any asset that is part of a network of similar assets. Examples are roads, water reticulation schemes, sewerage purification and trunk mains, transport terminals and car parks.
Investment properties	Properties that are acquired for economic and capital gains. Examples are office parks and undeveloped land acquired for the purpose of resale in future years.
Inventory register	A register that records and maintains all inventory purchases and movements.
ISO 55000: 2014	The British Standards Institution's (BSI) Publicly Available Specification for the optimised management of physical assets.
Life cycle	The time interval between when the need of an asset is first identified until the asset is disposed of.
Life cycle cost (LCC)	The sum of costs incurred by the asset owner over the lifetime of an asset, i.e. from the stage at which the asset is planned to the stage at which the asset is disposed in the life cycle stages.
MRO items	Items kept in an engineering store to support AM activities, including spare parts, fasteners, lubricants, consumables, jigs, fixtures, etc.

Term	Definition
Non-tactical maintenance	Non-tactical maintenance is work that does not originate from RCM or OMM analysis; or that is not part of the asset care plan. Non-tactical maintenance covers activities associated with unexpected equipment failure and potential failures.
Operational expenditure	The on-going costs for running a business or system. This includes the expenses required to maintain the organisation's existing assets.
Other assets	Assets utilised in normal operations. Examples are plant and equipment, motor vehicles and furniture and fittings.
Property, plant & equipment	Tangible assets that: 1. Are held by a municipality for use in the production or supply of goods or services, for rental to others, or for administrative purposes, and Are expected to be used during more than one period.
Recoverable amount	The amount that the municipality expects to recover from the future use of an asset, including its residual value on disposal.
Refurbishment	The act of restoring an asset to its former good condition, thereby resulting in an extension of its useful life.
Recognition of an asset	An asset is recognised when it is probable that the future economic benefits or potential service provision will flow to Council and the asset has a cost or value that can be reliably measured.
Run-to-failure	A maintenance tactic that intentionally allows for the failure of an item, because it is impossible or not cost effective to prevent the failure.
Reliability	The probability that equipment will perform its prescribed function, under stated conditions, for a stated period. Note the distinction from Availability.
Residual value	The net amount that the municipality expects to obtain for an asset at the end of its useful life after deducting the expected costs of disposal.
Tactical maintenance	Tactical maintenance tasks have been developed through some analytical process, such as RCM or OMM as an applicable and cost-effective way to improve equipment reliability. We define four types of tactical work: usage-based maintenance, condition-based maintenance, run-to-failure and design improvement maintenance.
Usage-based maintenance	Is maintenance conducted at regular, scheduled intervals of usage (kilometres, running hours, months, etc), which were established to avoid failure. It can include inspections, services or replacements. It is only effective if there is a certain age-related deterioration (wear-out).

Term	Definition
Useful life (EUL)	Either: 1. The period of time over which an asset is expected to be used by the municipality, or 2. The number of production or similar units expected to be obtained from the asset by the municipality.

4. Context and references

The AM policy for DM has been developed with due consideration of statutory requirements, organisational goals and stakeholder requirements.

4.1 ISO 55000

The policy is also aligned with the guidelines of the ISO 55000 series: 2014, Asset management.

4.2 Statutory requirements

The following statutory laws and regulations are applicable to AM within DM.

Statutory requirement	Reference documents
Governmental arrangements	1. Municipal Structures Act 2. Municipal Systems Act
Health and Safety	3. Occupational Health & Safety Act
Technology and systems	4. The State Information Technology Agency Act
Environment	5. National Environmental Management Act
Labour and industrial relations	6. Labour Relations Act
Accounting/Financial	7. Municipal Finance Management Act 8. GRAP requirements as published by the Accounting Standards Board 9. Broad-based Economic Empowerment Act

4.3 Organisational goals

The AM policy will support the achievement of the following DM Strategies, as documented in the DM Integrated Development Plan (IDP) for 2015-2016.

Key Performance Area	Key Focus Areas
Governance and Stakeholder Participation – to promote proper governance and public participation	Governance Structures
	Stakeholder Participation
	Risk Management
	Policies, Strategies, Plans and By Laws
	Monitoring and Evaluation
	Inter-Governmental Relations
	Communications (Internal and External)
Physical Infrastructure and Energy Efficiency – to ensure efficient infrastructure and energy supply that will contribute to the improvement of quality of life for all citizens within Drakenstein	Electricity Infrastructure and Energy Efficiency
	Roads and Storm water Infrastructure
	Water and Sanitation Infrastructure
	Solid Waste Infrastructure
	City Entrances
	Local Amenities and Public Places
Services and Customer Care – to improve our public relations thereby pledging that our customers are serviced with dignity and care	Water and Sanitation
	Electricity
	Cleansing and Waste Management
	Customer Relations
	Public Transport
	Branding and Website
	Building Regulations and Municipal Planning
Economic Growth and Development – to facilitate sustainable economic empowerment for all communities within Drakenstein and enabling a viable and conducive economic environment through the development of related initiatives including job creation and skills development	Growth
	Job Creation
	Investment (Domestic and Foreign)
	Socio-Economic Status
	Urban Renewal
	Skills and Education
	Trade and Industry
	Stability and Sustainability
	Rural Development
	Tourism
Health, Safety and Environment – to contribute to the health and safety of communities in Drakenstein through the pro-active identification, prevention, mitigation and management of health including environmental health, fire and disaster risks	Traffic, Vehicle Licensing and Parking
	Environmental Management
	Disaster Management *and Fire Fighting Services*
	Municipal Law Enforcement
	Parks, Cemeteries and Open Spaces

Key Performance Area	Key Focus Areas
Social and Community Development – to assist and facilitate with the development and empowerment of the poor and the most vulnerable. These include the elderly, youth and disabled	Sustainable Human Settlements (Housing)
	Sport and Recreation
	Arts, Craft and Culture
	Libraries
	Cemeteries and Crematoria
	Poverty alleviation
	Special Programmes (Gender, Elderly, Youth and Disability)
	Child Care Facilities
	Control of Public Nuisances
Institutional Transformation – to provide an effective and efficient workforce by aligning our institutional arrangements to our overall strategy in order to deliver quality services	Organisational Structure
	Human Capital and Skills Development
	Programme and Project Management
	Performance Management
	Systems and Technology
	Processes and Procedures
	Facilities
	Equipment and Fleet Management
Financial Sustainability – to ensure the financial sustainability of the municipality in order and to adhere to statutory requirements	Revenue enhancement
	Cost containment
	Asset Management
	Capital expenditure
	Supply Chain Management
	Financial Reporting
	Budgeting/Funding

5. Policy Statement

Drakenstein Municipality (DM) shall provide municipal services for which the municipality is responsible, at an appropriate level, and in a transparent, accountable and sustainable manner, in pursuit of legislative requirements and in support of its strategic objectives, according to the following core principles –

1. Effective Governance

   DM shall strive to apply effective governance systems to provide for consistent asset management and maintenance planning in adhering to and compliance with all applicable legislation to ensure that asset management is conducted properly, and municipal services are provided as expected. To this end, the municipality shall –

   a) Continue to adhere to all constitutional, safety, health, systems, financial and asset-related legislation;
   b) Regularly review updates and amendments to the above legislation;

c) Review and update its current policies and by-laws to ensure compliance with the requirements of prevailing legislation; and
d) Effectively apply legislation for the benefit of the community.

2. Sustainable Service Delivery

DM shall strive to provide to its customer services that are technically, environmentally and financially sustainable. To this end, the municipality shall –

a) Identify technical and functional performance criteria and measures, and establish a commensurate monitoring and evaluation system;
b) Identify current and future demand for services, and demand management strategies;
c) Set time-based targets for service delivery that reflect the need to newly construct, upgrade, renew and dispose infrastructure assets, where applicable in line with national targets;
d) Apply a risk management process to identify service delivery risks at asset level and appropriate responses;
e) Prepare and adopt a maintenance strategy and plan to support the achievement of the required performance;
f) Allocate budgets based on long-term financial forecasts that takes cognisance of the full life-cycle needs of existing and future infrastructure assets and risks to achieving the adopted performance targets;
g) Strive for alignment of the financial statements with the actual service delivery potential of the infrastructure assets; and
h) Implement its tariff and credit control and debt collection policies to sustain and protect the affordability of services by the community.

3. Social and Economic Development

DM shall strive to promote social and economic development in its municipal area by means of delivering Municipality services in a manner that meet the needs of the various customer user-groups in the community. To this end, the municipality shall –

a) Regularly review its understanding of customer needs and expectations through effective consultation processes covering all service areas;
b) Implement changes to services in response to changing customer needs and expectations where appropriate;
c) Foster the appropriate use of services through the provision of clear and appropriate information;
d) Ensure services are managed to deliver the agreed levels and standards; and
e) Create job opportunities and promote skills development in support of the national EPWP.

4. Custodianship

DM shall strive to be a responsible custodian and guardian of the community's assets for current and future generations. To this end, the municipality shall –

a) Establish a spatial development framework that takes cognisance of the affordability to the municipality of various development scenarios;
b) Establish appropriate development control measures including community information;
c) Cultivate an attitude of responsible utilisation and maintenance of its assets, in partnership with the community;
d) Ensure that heritage resource are identified and protected; and
e) Ensure that a long-term view is taken into account in infrastructure asset management decisions.

5. Transparency

DM shall strive to manage its infrastructure assets in a manner that is transparent to all its customers, both now and in the future. To this end, the municipality shall –

a) Develop and maintain a culture of regular consultation with regard to its management of infrastructure in support of service delivery;
b) Clearly communicate its service delivery plan and actual performance through its Service Delivery and Budget Implementation Plan (SDBIP); and
c) Continuously develop the skills of councillors and officials to effectively communicate with the community with regard to service levels and standard.

6. Cost- effectiveness and efficiency

DM shall strive to manage its infrastructure assets in an efficient and effective manner. To this end, the municipality shall –

a) Assess life-cycle options for proposed new infrastructure in line with the Supply Chain Policy;
b) Regularly review the actual extent, nature, utilisation, criticality, performance and condition of infrastructure assets to optimise planning and implementation works;
c) Assess and implement the most appropriate maintenance of infrastructure assets to achieve the required network performance standards and to achieve the expected useful life of infrastructure assets;
d) Continue to secure and optimally utilise government grants in support of the provision of free basic services;
e) Implement new and upgrading construction projects to maximise the utilisation of budgeted funds;

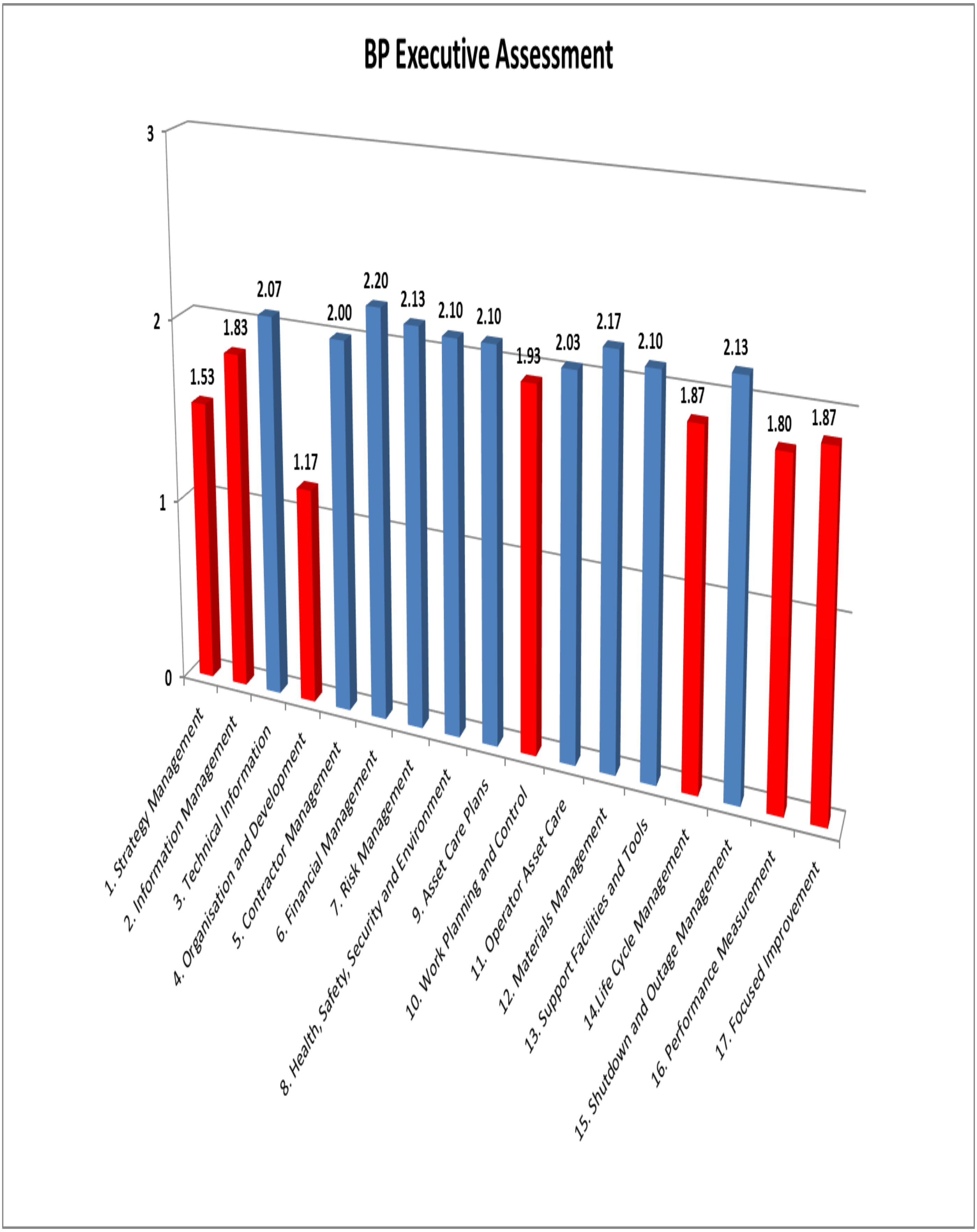
f) Ensure the proper utilisation and maintenance of existing assets subject to availability of resources;
g) Establish and implement demand management plans;
h) Timeously renew infrastructure assets based on capacity, performance, risk exposure, and cost;
i) Timeously dispose of infrastructure assets that are no longer in use;
j) Review management and delivery capacity, and procure external support as necessary;
k) Establish documented processes, systems and data to support effective life-cycle infrastructure asset management;
l) Strive to establish a staff contingent with the required skills and capacity, and procure external support as necessary; and
m) Conduct regular and independent assessments to support continuous improvement of infrastructure asset management practice.

6. AM policy elements

DM's AM policy is best defined with reference to the 17 KPAs or elements of an AM system as described in the introduction to this AM policy. Based upon DM's AM maturity self-assessment, facilitated by Aurecon during November 2015, a total of 6 priority KPA's were selected by the AM Steering Committee for a more detailed assessment. These are:

- Strategy management – Strategy management will form the foundation for all other improvements.
- Information management – General agreement that this is an area that should be addressed urgently.
- Technical information – Some gaps have emerged in the available technical information, resulting as this being identified as a priority area.
- Organisation and Development – Included because of the importance of people in the asset management function. Ultimately asset management cannot happen without sufficient people.
- Work Planning and control – General agreement that the way the maintenance work is identified and managed should be a focus area.
- Life cycle management – General agreement of the importance of lifecycle asset management in order to minimise lifecycle costs and to be prepared for the replacement of assets at the end of their useful lives.

The maturity levels for all 17 KPA’s are shown in the accompanying diagram.



A more comprehensive description for each of the 17 KPA's are included below. Target maturity levels have also been set for the 6 priority KPA's.

6.1 Strategy Management *(Priority KPA)*

The following strategic documents will be developed, updated or refined during DM's strategic AM planning activities:

1. AM policy (statement of intent)
2. AM strategy with long term time scales and focus areas
3. AM Master plans with priority initiatives for each KPA

The AM Steering Committee will oversee the implementation of these plans and the associated performance improvements on a quarterly basis. They will be supported by technical sub-committees, on an operational level, which will meet as required.

The AM strategy and master plans shall be updated on an annual basis in line with the growing maturity as measured by an independent AM maturity assessment.

The AM Steering Committee will ensure implementation of the approved Asset Management Policy.

Target maturity level: AMIP level 3

Expected benefit

1. Clear and well communicated policy and strategy documents, with planned and prioritised activities to achieve the short term AM goals for DM.
2. The clearly stated and communicated strategy will support the change management required to obtain the necessary buy-in from stakeholders.
3. Strong support for the AM improvement plan from Executive management will support organisation-wide participation and support.

6.2 Information Management *(Priority KPA)*

DM must utilize appropriate Enterprise Asset Management System (EAMS) software to maintain a register of physical assets, as well as to process and store day-to-day AM transactions.

The EAMS will be required to interface with DM's financial management system for all financial and organisational data processing, as well as with the physical equipment for asset performance data.

The EAMS will also be required to store spatial data of all assets, or to interface with the Geographic Information System (GIS) of DM.

The EAMS will be used to produce the required reports and analyses to facilitate effective decision making.

This EAMS system will ensure that:

1. All required maintenance work is clearly identified.
2. Maintenance work is effectively planned and scheduled.
3. Resource allocation is done effectively.
4. Maintenance history is recorded.
5. Maintenance costs are recorded (labour, materials and travel).
6. Failure information and other related history is kept.
7. Asset performance is monitored.
8. MRO items are purchased and provided as required for maintenance.
9. Information is made available to management for decision making.

Target maturity level: AMIP level 3

Expected benefit

1. Improved compliance with performing of required maintenance work
2. More accurate and timely AM information for decision making.
3. Increased utilisation of resources
4. Compliance with GRAP requirements

6.3 Technical Information ***(Priority KPA)***

A detailed, hierarchically structured register will be compiled and maintained for all physical assets, with their important attributes listed. This register will be synchronised with the financial asset data to ensure alignment and be kept up to date with any movement, addition or removal of physical assets.

All asset-related documents (such as drawings, manuals, catalogues and specifications) will be kept in a safe place with easy access to all. These documents will be in electronic format as far as possible, to allow for digital storage and distribution. All changes to the assets will be reflected in the associated documentation.

The Executive Managers shall approve all asset movements (*Donations* to and by the municipality, *Additions / Improvements*, *Loss or damage*, *Transfers*, *Write-offs*, *Land sales*, *Other disposals*). All assets to be written off and removed from the asset register must be approved by Council or, if the value does not exceed R50 000, by the Municipal Manager after a recommendation by the relevant Executive Manager. Disposal of assets will be done in accordance with the Asset Disposal policy and the SCM policy.

When an asset is transferred interdepartmentally, the Asset Transfer Form must be forwarded to the Executive Manager of the directorate receiving the asset, and to the Manager: Assets and Insurance Management.

When assets are transferred to other government departments or municipalities, a document with specific authorisation should be drawn up to ensure the validity of the transfer. The document should include:

a) Asset description;
b) Carrying value of the asset;
c) Unique asset number;
d) Effective date of transfer; and
e) Authorisation by both transferor and transferee.

Each directorate must keep an accurate record of all asset losses and report such losses to the Manager: Assets and Insurance Management in the reporting period when the loss was incurred.

The Manager: Assets and Insurance Management shall:

1. Verify movable assets in possession of the Council annually, as at 30 June of a particular financial year.
2. Produce a detailed report on the assets verification exercise.
3. Prepare an annual report documenting the following asset movements:
    a) Donations to and by the municipality.
    b) Additions / Improvements.
    c) Auctions.
    d) Loss or damage.
    e) Transfers.
    f) Write-offs.
    g) Land sales.
    h) Other disposals.
4. Keep a complete and balanced record of all assets in possession of the Council.
5. Ensure that the asset register is balanced at least annually.

Target maturity level: AMIP Level 3

Expected benefit

1. Effective access to all asset technical information, to support improved labour productivity and more effective maintenance.
2. Correct technical details of all assets recorded and available for annual audit purposes.

6.4 Organisation and Development *(Priority KPA)*

DM's organisational structure shall reflect the following approach regarding AM:

1. Responsibility for AM will be shared among all Directorates.
2. The Asset Management Committee shall convene regularly and take measures to effectively implement this policy and shall report quarterly to the Executive Management Team (EMT) on progress made.
3. The responsibility for asset operation and asset care of infrastructure assets is assigned to the Directorate: Infrastructure (Technical) Services.
4. Each Directorate shall have the responsibility for planning and scheduling of maintenance activities on all assets under their control.
5. The responsibility for technology & equipment is assigned to the Chief Information Officer (IT) in the Directorate: Corporate Services.
6. The responsibility for Capital project management and project specification is assigned to the project managers identified within the relevant Directorate.
7. The responsibility for the Health and Safety part of the HSSE function is assigned to the Health and Safety Officer in the Directorate: Corporate Services.
8. The responsibility for the Environment part of the HSSE function is assigned to the Executive Manager: Planning and Local Economic Development.
9. The responsibility for MRO material management is assigned to the Manager: SCM, in the Financial Services Directorate.
10. The responsibility for maintenance execution for land and buildings (excluding Housing assets) is assigned to the Manager: Property Management in the Directorate: Corporate Services.
11. The responsibility for maintenance execution for Housing assets is assigned to the Senior Manager: Human Settlements in the Directorate: Community Services.

DM’s management must develop and/or participate in the development and implementation of systems and processes to ensure that their staff have the necessary skills and competencies for the healthy, safe, environmentally-friendly and cost-effective management of physical assets.

These systems and processes will encompass the following areas:

1. Recruitment, selection, appointment and promotion of staff.
2. Definition of job and skills requirements for the AM tasks and functions, including both technical and other AM competencies
3. Identification of skills gaps and the training plans to close these gaps
4. Recognition and reward that is commensurate with the skills and demonstrated competence levels.

Target maturity level: AMIP Level 3

Expected benefit

1. An empowered, efficient, competent and stable workforce.

6.5 Contractor Management

Normal maintenance activities will be conducted primarily by internal resources.

The following maintenance and construction work will, however, be contracted out:

1. Specialised services, such as pipe jetting.
2. Special heavy equipment, e.g. cranes, lifting- & earthmoving equipment.
3. In all other cases where it makes economic sense to outsource.

Contractors must be selected based on their competence, price and previous performance record. They will be subjected to all the standard policies and procedures applicable to DM’s staff, especially regarding the SCM Policy and HSE policies.

Expected benefit

1. Stable workforce, lower costs and utilisation of specialised skills where required.

6.6 Financial Management

All authorisation levels for AM expenditure will be defined in accordance with DM's financial policies.

A rolling 20 year capital development plan and 5 year capital budget will be compiled to provide for the replacement of all assets which have reached the end of their useful life, either in terms of technology or cost of ownership, as well as for any new assets required to fulfil the operational requirements of DM and extension of services. This plan and budget will be compiled by relevant Executive Managers with inputs from the CFO and other stakeholders. The capital plan will be informed by the IDP and sector plans such as the water services development plan, roads management plan end others.

All maintenance costs will be captured per work order, against a specific asset and cost centre to facilitate analysis and control.

All assets will be accounted for in accordance with Generally Recognised Accounting Practice (GRAP), as described in DM's **Financial Asset Management Policy** (FAMP). For depreciable assets, straight-line depreciation will apply over the stated standard estimated useful life (EUL) period. The EUL's used will be as described in Appendix A to the FAMP.

The process to be followed when assets are acquired shall be in accordance with the Council's SCM Policy as well as any standard Payment Procedures. This shall apply to all the types of Council's assets.

Expected benefit

1. Compliance with the FAMP, MFMA and GRAP requirements.
2. Improved cost control.
3. Clean annual audits.

6.7 Risk Management

DM considers risk management to be a key component for its business continuity and will devote the required effort and resources to ensure that the risks faced by the organisation in the course of its business activities, are appropriately identified, measured, evaluated and managed.

The Municipality applies control and safeguards to ensure that assets are protected against improper use, loss, theft, malicious damage or accidental damage. The existence of assets is physically verified from time-to-time, and measures adopted to control their use.

The Chief Risk Officer, in conjunction with DM senior management, is responsible for overall risk management, which consists of the following activities:

1. Identifying and defining asset-related risks which could impact the organisational goals.
2. Documenting the scope, nature and timing in a formal risk register.
3. Specifying how these risks could change; over time or based on asset utilisation.
4. Classifying the severity of these risks in order to define whether they need to be avoided, eliminated or controlled.
5. Defining the probability of these risks occurring.
6. Defining the controls required to address these risks.
7. Providing for the regular monitoring of these controls to ensure that the risks are mitigated.

The CFO (or delegated official) shall ensure that all significant assets are insured in accordance with DM's approved Insurance Management Policy. All insured assets shall be handled in terms of the insurance policy as agreed with the appointed Insurance Brokers.

The responsibility for the physical control of assets rests with the relevant directorate responsible for the specific asset. No asset (including rented assets, such as photocopy machines), may be moved without the prior consent of the respective Executive Manager and notification of the Manager: Assets and Insurance Management.

The CFO must financially substantiate the assets as per Annual Financial Statements and participate in the process of physical control to achieve accurate and reliable asset information with regards to purchases, write-offs, transfers, donations and locations.

The existence, condition and location of these assets shall be verified periodically (annually for movable assets), including a condition assessment to identify indicators of impairment and determine the impact on an asset's remaining useful life.

Asset safeguarding directives and procedures shall be prepared for all assets indicating measures that are considered effective to ensure that all assets under control of the municipality are appropriately safeguarded from inappropriate use or loss, including the identification of asset custodians for all assets. Day-to-day duties relating to such control, verification and safekeeping may be allocated to asset custodians.

Although certain responsibilities have been allocated to certain levels of management, the ultimate responsibility to ensure control over each asset in terms of the policy remains with Executive Managers.

It is the responsibility of all municipal staff to adhere and practice strict physical controls of the assets around their work area.

Executive Managers shall –

a) enforce the application of the procedures for controlling and safeguarding the Municipality's assets, including the movement of assets and confirmation of verified assets during annual verification,
b) report malicious damage, theft, and break-ins to the Municipal Manager and to the Manager: Assets and Insurance Management (or delegated official) within 48 hours of its occurrence or awareness by the respective Executive Manager, and
c) report criminal activities to the South African Police Services.

Expected benefit

1. Reduced and contained asset-related risks.

6.8 Health, Safety, Security and Environment

Good health, safety and environmental practices are non-negotiable elements of the way DM operates. As a result, HSE compliance and HSE improvement will always receive top priority above any operational needs. The aim is to have a well-entrenched HSE culture in all areas and on all sites.

DM shall ensure that all applicable legal and other external obligations or requirements are identified and incorporated into the corresponding elements of the AM system.

An HSE programme will be established to ensure that the work area is safe and healthy, and that damage to the environment is prevented as far as possible. An emergency response process and incident investigations will ensure the consequences of any incident is minimised and a recurrence prevented.

Asset requirements will be clearly displayed in all areas requiring assets and all staff will be issued with the required furniture, tools and equipment necessary for the execution of their duties.

Communication and outreach programmes will regularly be held to communicate the risks that DM's assets pose to neighbouring communities.

DM will aim to reduce its energy usage and associated carbon footprint.

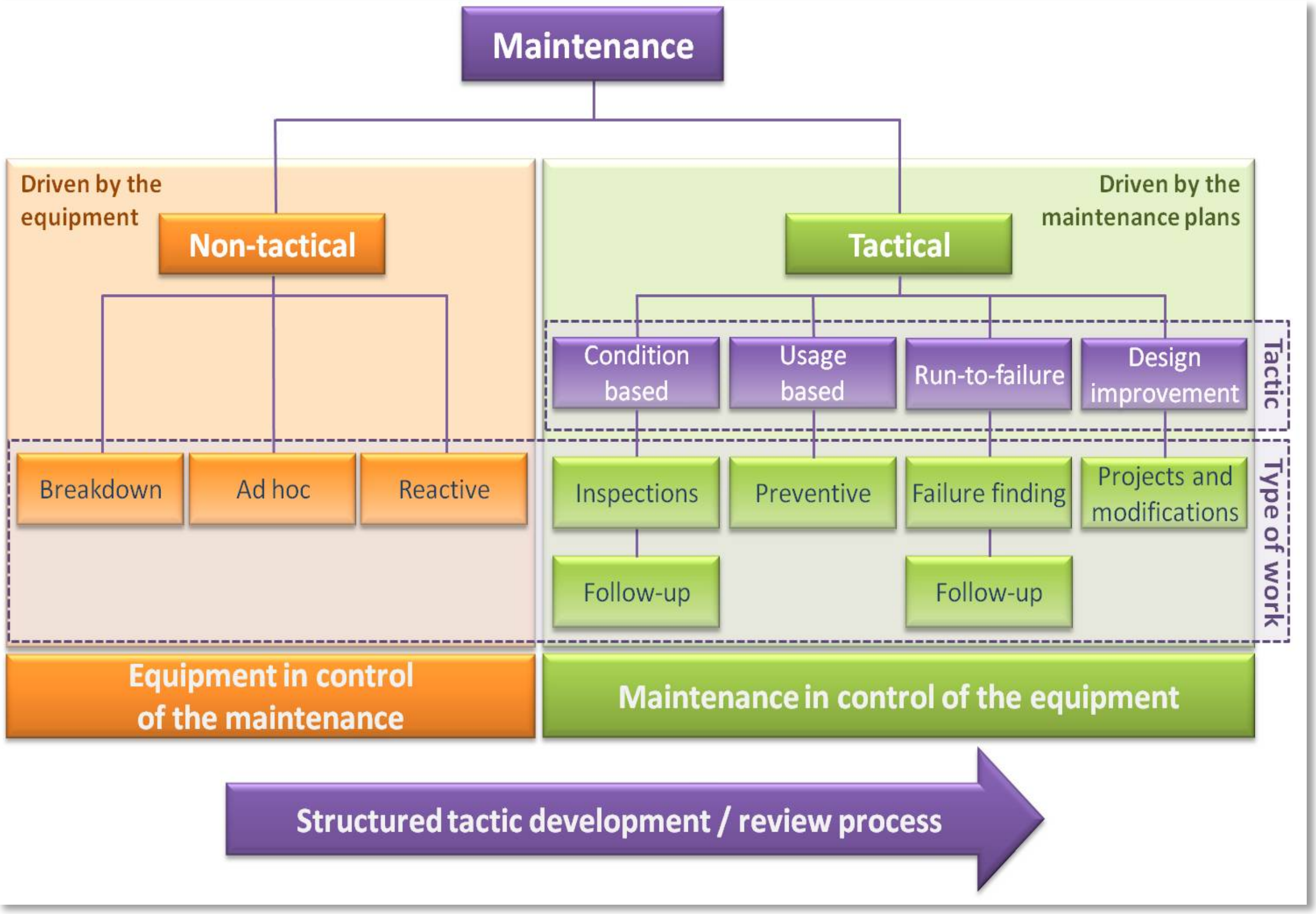
Expected benefit

1. Compliance with HSE legislation
2. A safe and healthy working environment for employees, contractors and the wider community.

3. Reduced environmental impact.

6.9 Asset Care Plans

The on-going focus will be on moving from non-tactical (generally reactive) to tactical (generally pro-active) maintenance, which will be achieved by defining and implementing the optimum maintenance mix for each equipment type per location. The maintenance mix will comprise of a combination of the maintenance tactics indicated below:



Executive Managers shall prepare, and review at least every 3 years, Operation and Maintenance Policies and Plans, and submit such, through the AMC, to EMT for adoption. The municipality shall engage contractors when necessary to support in the implementation of maintenance actions and adopt a system that assists in managing such maintenance.

Maintenance policies applicable in the different directorates or departments, as well as any operation and maintenance strategies and plans will be reviewed and refined periodically to improve asset performance and reduce maintenance costs.

Expected benefit

1. Improved asset reliability and availability at an optimum maintenance cost.

6.10 Work Planning and Control *(Priority KPA)*

DM will utilise the EAMS system for all maintenance work planning and control activities. This will be done according to the formal business processes to be developed.

1. All normal (non-emergency) breakdown work will be identified on the EAMS.
2. All tactical work to be performed will be initiated by means of a work order generated in the EAMS by the central Maintenance Planning office.
3. All work to be performed by a contractor will be initiated by means of a work order generated in the EAMS by the centralised Maintenance Planning Office.
4. The centralised Maintenance Planning Office will plan all resource requirements (e.g. spare parts, special tools, permits) and arrange for its availability.
5. Maintenance work will be scheduled by the centralised Maintenance Planning Office in accordance with the operational plans and in collaboration with the LM Area managers.
6. All work performed, materials and labour used shall be recorded directly in the EAMS by the LM area and/or central maintenance clerks via the established user interface.
7. Root cause analysis (RCA) shall be done for all call-outs and breakdowns which exceed two hours.
8. Over inspections shall be carried out by maintenance foremen/supervisors on work done on critical assets.
9. A procedure will be implemented to manage all rotable items, such as motors, pumps, gear boxes, etcetera, to ensure that their history is tracked and their warranties applied.
10. The EAMS will be used to control all outstanding work, as well as to analyse maintenance history and excessive maintenance costs.

Target maturity level: AMIP Level 3

Expected benefit

1. Control over all maintenance activities.
2. Faster response times.
3. Better utilisation of resources and improved standard of maintenance work.
4. Elimination of underlying causes of repetitive breakdowns.

6.11 Operator Asset Care

Due to the wide geographic area covered by DM’s assets, Operator Asset Care (OAC) will be a key strategy in the asset care programme, and all key operational staff will take partial responsibility for equipment care by:

1. Operating the equipment in the correct manner and keeping it clean.
2. Inspecting the equipment regularly to detect equipment problems before they result in a major breakdown.
3. Assisting the maintenance/engineering personnel in maintaining the equipment by doing minor repairs, lubrication and providing assistance during major repairs.

The following step-by-step process will be followed to enable the operating personnel to perform these tasks:

1. Document simple user-friendly standard operating procedures, and display these in operational areas as appropriate.
2. Train operating personnel in the principles of operator asset care.
3. Train operating personnel in the functioning of the equipment and the correct operating procedures.
4. Issuing operating personnel with the required tools and equipment to perform the required basic asset care tasks.
5. Involve the operating personnel in cleaning and tagging the equipment in order to return it to an “as good as new” condition.
6. Introduce regular cleaning and inspection tasks for operational staff, making ample use of visual management systems.
7. Introduce operator-based lubrication, where applicable.
8. Train operational staff to do minor repairs and fault-finding to support engineering staff during major repairs.

Expected benefits

1. Reduced maintenance costs and higher equipment reliability.

6.12 Material Management

Formal material management systems and processes will be implemented to ensure proper control and optimisation of the investment in MRO inventory. It will also provide an excellent service to the projects and maintenance teams to ensure availability of material when required. The material management will apply the following principles:

1. Implement an integrated EAMS system to ensure maximum data velocity, visibility, reporting capability and avoid data duplication.
2. Maintain an up to date and accurate material master database of both stock and non-stock items, with all the required information to support decision making and replenishment.
3. Purchase material from reputable suppliers who adhere to the required quality standards and can provide a fast and efficient service.
4. Manage the MRO stores in such a manner as to ensure accurate inventory levels, protection of items, clean and tidy facilities, and a fast and efficient service to maintenance.
5. Manage rotables in such a way as to make maximum use of refurbished items.
6. Continuously optimise the inventory by reviewing stock levels, considering consignment stock, reducing delivery lead times, standardising, and removing redundant or slow moving items.

An annual stock take will be conducted and Executive Managers shall follow up any discrepancies in the asset stock take report.

Expected benefit

1. An accurate material master database.
2. Availability of MRO items required for maintenance, repairs and operation.
3. Optimisation of the working capital tied up in MRO inventory.

6.13 Support Facilities and Tools

Maintenance staff will have access to the required workshop facilities, lubrication facilities, condition monitoring, hand- and special tools, as well as support vehicles to perform their work effectively. They will ensure that these tools and facilities are kept in a clean and organised manner by applying 5S principles.

Expected benefit

1. Higher productivity and efficiency of maintenance staff.
2. More reliable and improved quality services according to operational requirements.

6.14 Life Cycle Management *(Priority KPA)*

DM will develop a framework to determine the replacement of physical assets, based upon a combination of the following parameters:

1. The depreciated book value of the asset and its remaining useful life (RUL)
2. The physical condition of the asset.
3. Maintenance costs and breakdown history.
4. Technical obsolescence.
5. Asset standardisation policies.

The AM Steering Committee (including sub-committees), the relevant Directorate and the Financial Services Directorate will therefore be responsible for the following activities:

1. Establish and maintain the whole life cost database.
2. Generate alternative comparisons in order to make recommendations, especially where new technology plays a major role.
3. Calculate the book value of all assets using an appropriate depreciation model.
4. Do physical assessments of all assets from time to time, using criteria applicable to each asset type.
5. Make recommendations in conjunction with the line managers at the various areas regarding the long-term replacement plan and the verification of replacement decisions. This will perform the function of automatically auditing the capital budget process.
6. Prepare detailed specifications and cost justifications for the acquisition of new equipment.
7. Manage the acquisition of new equipment, including supplier visits, progress reviews, acceptance tests and preparing for delivery.
8. Manage the installation and commissioning of new equipment to ensure a “vertical start-up” with equipment performing at the required standard within the specified time.
9. Manage the decommissioning of old equipment in a manner to ensure maximum financial benefit, minimal operational disruption and minimal environmental damage.
10. Include life-cycle cost estimates in the design process for all new projects.

Executive Managers shall develop, and update at least every 3 years, Asset Management Plans (AMPs) for each service involving immovable assets that shall assess level and standards of service, future demand, risk determine a life-cycle plan for a minimum 10 years planning horizon, and identify management practice improvement needs. The AMPs will be submitted through the

AMC to EMT for adoption. AMPs shall be used to inform the preparation of a Capital Development Plan and budgets through the IDP process.

Target maturity level: AMIP Level 2

Expected benefits

1. Increased asset productivity and reduced costs.
2. Reduced vertical start-up for new equipment.

6.15 Project and Shutdown Management

Maintenance Capital projects (such as the installation of new equipment or the upgrade of information systems) will be managed in a professional manner according to accepted project management principles. Such projects will have a:

1. Clear scope definition in terms of a statement of work.
2. Detailed project plan, based on a work breakdown structure to show resource loading and the critical path.
3. A thorough risk assessment and mitigation plan.
4. Regular progress reviews and communication.
5. A proper project handover.
6. A post-project review to document lessons learned.

Expected benefit

1. Successful capital projects and shutdowns, completed on time, within budget and at the required quality standards.

6.16 Performance Measurement

Strategic AM KPIs and targets will be developed and deployed throughout the organisation to the relevant stakeholders and teams. This will ensure a clear “line of sight” between lower level KPIs and the organisational goals.

Performance against these KPIs will be measured. The responsible teams will meet regularly, review their performance and discuss ways of improving it.

Expected benefit

1. Increased accountability and ownership of performance at all levels of the organisation.

6.17 Focused Improvement

From time to time the AM Steering Committee will determine focus areas for all improvement efforts, for example improved asset performance or reduced AM costs. These focus areas will be communicated to everyone involved in AM in terms of specific improvement targets.

These improvement targets will be achieved by implementing specific improvement projects, as well as doing daily structured problem solving on major problem areas. A structured problem-solving approach will be implemented, to ensure that these improvements are done in a sustainable way.

The problem solving process will be based on the following principles:

1. Major or chronic problems are identified as potential projects.
    a. Project selection criteria are based on the AM Strategy and potential benefits.
    b. The project team is selected based on the nature of the problem.
    c. The project team is held accountable for the results.

Expected benefit

1. Increased equipment reliability and reduced costs

7. Conclusion

This AM policy describes the desired end state for AM at DM, and will contribute significantly to achieving the organisations strategic objectives and community's expectations.

The document has been developed by DM management in line with the municipality's goals and is therefore of strategic importance. It forms the baseline for all major asset-related decisions and improvement activities.

The next steps are to:

1. Perform a more detailed assessment of the 6 priority KPA's selected by the AM Steering Committee (focus areas to be addressed first).
2. Develop an asset strategy by identifying improvement projects based upon the gap between the current and target maturities, and which will enable the achievement of the target maturities.
3. Combine these projects in an overall Asset Management Improvement Plan (AMIP), which will spell out how to achieve the target maturities over the next 12-18 month period, along with timelines and responsibilities.
4. Implement the AMIP.
5. Monitor performance against targets by the AM Steering Committee on a quarterly basis, to ensure that the AMIP is successfully implemented.
6. Report on progress to the EMT.